REMARKS

Claims 1-10, 17, 19-29 and 32-49 were presented for examination and were pending in this application. In a Final Official Action dated October 24, 2003, claims 1-10, 17, 19-29 and 32-49 were rejected. Applicants thank Examiner for examination of the claims pending in this application and addresses Examiner's comments below.

Based on the following Remarks, Applicants respectfully request that Examiner reconsider all outstanding objections and rejections, and withdraw them.

Previous Objection to the Drawings

In the Official Action dated June 10, 2003, Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) for not including reference sign 415 mentioned in the description. In the Amendment B and Response filed on August 1, 2003, Applicants requested further clarification for this objection and submitted a proposed drawing correction to overcome this objection. In the Final Office Action of October 24, 2003, to which this document is responsive, Examiner does not indicate whether the Drawings remain objected or whether the proposed drawing correction was approved. Applicants kindly request Examiner's acceptance of the drawings as originally filed or the approval of the proposed drawing correction submitted with Amendment B and Response on August 1, 2003.

Response to Rejection Under 35 USC 102(b)

In the 2nd paragraph of the Final Office Action, Examiner rejects claims 1-7, 10, 17, 19-26, 29, 32-34, and 47 under 35 USC § 102(b) as allegedly being anticipated by U.S. Patent No. 5,682,379 to Mahany et al. ("Mahany"). This rejection is traversed.

Claim 1 recites:

> A method for receiving an output signal from one of a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range, the method comprising:
> receiving the output signal at a processor;
> identifying whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal; and
> implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

Similarly, claim 19 recites a system for receiving an output signal ... comprising a processor for receiving the output signal, wherein the processor is adapted to among other things:

> implement a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

In a similar fashion, claim 33 recites a computer readable medium comprising a plurality of instructions that when executed by a processor, they cause the processor to among other steps perform the step of:

implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented.

Likewise, claim 34 recites a receiver apparatus for receiving wireless communications that comprises:

a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information.

The implementation of "a protocol that corresponds to the identified wireless communication device" and the "effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices in response to determining which wireless communication device sent the communication information" beneficially provide the ability to receive signals encoded according to different communication protocols and, after reception of the signal, for example, based on the first few bits of the data, implement the proper protocol to decode the rest of its content. One example of a system for which this feature is advantageous includes a system in which a single receiver receives signals from several transmitters, each using a different communication protocol, wherein the transmitters are uni-directional, i.e., a polling master/slave communication protocol cannot be implemented.

In contrast to the claimed invention, Mahany describes "a mobile network device," (microLAN master) one embodiment of which "has a single radio unit which is capable of participating in a first and second radio network (a microLAN and a high powered main

network) which operate using a first and second communication protocol." (col. 3, lines 29-36).

Particularly, the microLAN master device implements a channel access algorithm by transmitting "idle sense" messages and "clear to send" messages to regulate communications with and between microLAN slave devices (see Fig. 5 and col. 11, lines 12-36). Channel access strategies for carrier sense multiple access (CSMA) systems are used with the Mahany system. This involves a timing based protocol wherein communications are regulated based on synchronization with the master device (see Fig. 6a and col. 11, line 38 to col. 12, line 15).

In addition, the microLAN master device also services the high powered main communication network. (See col. 13, lines 39-42) The microLAN master device follows a timing sequence for communicating with both networks (see Fig. 7 and col. 13, lines 39-50). "The base station [of the high powered main network] periodically broadcasts HELLO messages indicating that it is available for communication. The microLAN master device monitors the HELLO messages during a time period 263" (col. 13, lines 53-54). "The microLAN master device acts as a slave of base stations in the main communication network" (col. 13, lines 66-67).

As Examiner noted, in the embodiment in which the master device only has one radio, when a communication conflict is encountered, the master chooses to service one network based on network priority considerations. (See Fig. 6b and col. 14, lines 3-17). That is, the microLAN master device of Mahany independently implements two protocols each with a timing algorithm. In the embodiment in which the device has just one radio, when a timing conflict occurs, i.e., the sole radio needs to be used to receive or transmit at

the same time in both wireless networks, a determination is made as to which network should be serviced (i.e., for what purpose the radio will be used). This determination is based on some predetermined network priority scheme, e.g., "it may be desirable to service the slave [of the microLAN] because of the presence of data rather than monitor the main network for HELLO messages from the base. On the other hand, ... it may be more desirable to monitor the main network for HELLO messages rather than transmit an 'idle sense' message on the subnetwork." (col. 14, lines 12-17).

However, contrary to Examiner's suggestion, Applicants respectfully submit that there is no implication that the processor is able to "identify whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal" as Applicant's claimed invention recites. In fact, the microLAN master device of Mahany is able to determine when it will receive data from the microLAN slave devices (i.e., after the "clear to send" message) and when it can send or receive data from the base station (i.e., after the HELLO message). That is, when the master listens for a HELLO from the base station, if it receives a HELLO message within the appropriate time window, it can discern that the message is from the base station and not from a slave. Similarly, when it sends a "clear to send" message to a slave, if it received data within the appropriate time window, the master can discern that the data is from the slave based on the proper timing.

Further, there is no indication in Mahany of whether the microLAN master device would be able to recognize a transmission from a slave of the subnetwork if it took place out of sequence while the master is listening for a HELLO message from the base. Therefore, the microLAN master device of Mahany is able to "discern which signal is which" based on

the timing of the signal. However, Mahany fails to "identify whether the first wireless communication device or the second wireless communication device sent the output signal based on information included in the output signal" as recited within the claimed invention.

A further example of this distinction is the conflict resolution scheme described in Mahany. This description shows how the Mahany system is sharply different, and teaches away from, the claimed invention of claims 1, 19, 33, and 34. The system of Mahany does not "implement a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented" as claimed by Applicants. Rather, the Mahany system implements the two protocols based on the timing according to the channel access algorithms for the MicroLAN and the master networks. Further, the Mahany system is timing based and therefore requires communications between master and slaves (HELLO, "idle" messages, "clear to send" messages, etc.). This timing based system of Mahany teaches away from the identity based system of the claimed invention because it requires bi-directional communications between master and slaves. Thus, the teachings of Mahany are not compatible with the system of the present invention.

In a rejection under 35 U.S.C. §102, each and every claim element must be present in the applied reference. However, Examiner has failed to point out any prior instance of "implementing a protocol that corresponds to the identified wireless communication device, wherein in response to identifying the first wireless communication device, a first protocol is implemented, and in response to identifying the second wireless communication device, a second protocol is implemented" as specifically recited in claims 1, 19, 33, and 34.

Therefore, it is respectfully submitted that, for at least these reasons, the rejection is improper and should be withdrawn.

Further, as claims 2-7, 10, 17, 20-26, 32, and 47 are dependent on claims 1, 19, 33, or 34, all arguments advanced above with respect to claims 1, 19, 33, and 34 are hereby incorporated so as to apply to claims 2-7, 10, 17, 20-26, 32, and 47. Based on these Remarks, Applicants respectfully submit that for at least these reasons claims 1-7, 17, 19-26, 29, 32-34, and 47 are patentably distinguishable over the cited reference. Therefore, Applicants respectfully request that Examiner reconsider the rejection, and withdraw it.

Response to Rejection Under 35 USC 103(a)

In the 14th paragraph of the Final Office Action, Examiner rejects claim 35 under 35 USC § 103(a) as allegedly being unpatentable in view of Mahany, in light of the rejection to claim 34. This rejection is respectfully traversed.

As Examiner points out, Mahany does not disclose having a third I/O port for receiving communication from a third wireless device. Examiner suggests that "it would have been obvious to a person of ordinary skill in the art at the time of the invention to have a third port along with the first two ports to receive communications from a third wireless device. One would have been motivated to do this because if there was another device that needed to communicate with the master device, it would have been convenient to have a third port so that the device could process multiple devices within the same frequency range at the same time."

The purpose or intended function of Mahany would be thwarted if combined as the Examiner's rejection suggests. Specifically, the system of Mahany allows multiple slaves to

communicate with the master without the need for an additional I/O port. Further, the

microLAN master device of Mahany is not configurable to receive communications from

more than one slave device at the same time, even if an additional I/O port were used, due to

the collision avoidance communication process used. Mahany describes this process as

follows:

> Fig. 5 is a block diagram illustrating a channel access algorithm used by microLAN slave <u>devices</u> in according to the present invention. At a block 181, when a slave device has a message to send, it waits for an idle sense message to be received from the microLAN master device at block 183. When an idle sense message is received, the slave device executes a back-off protocol at block 187 by [sic] in an attempt to avoid collisions with <u>other slave devices</u> waiting to transmit. Basically, instead of permitting every slave device from repeatedly transmitting immediately after an idle sense message is received, each waiting slave is required to first wait for a pseudo-random time period before attempting a transmission.

(Col. 11, lines 12-24; emphasis added). Therefore, one of ordinary skill in the art would <u>not</u>

be motivated "to have a third port along with the first two ports to receive communications

from a third wireless device" because another device that needed to communicate with the

master could do so simply by waiting to the proper time and because having a third I/O port

is <u>inconsistent</u> with the collision avoidance protocol of Mahany in which only one slave

device can transmit at any given time.

Additionally, claim 35 is dependent on claim 34. As such, all arguments advanced

above with respect to claim 34 are hereby incorporated so as to apply to claim 35. Based on

these arguments, Mahany fails to disclose "a processor for effecting upon received

communication information a protocol that corresponds to one of the first or second wireless

communication devices in response to determining which wireless communication device

sent the communication information" as claimed in claim 34. In addition, the obviousness argument provided by Examiner, even if it was proper, fails to suggest this missing element.

Therefore, Applicants respectfully submit that for at least these reasons claim 35 is patentably distinguishable over the cited reference, both alone and in combination with Examiner's suggestion. Therefore, Applicants respectfully request that Examiner reconsider the rejection, and withdraw it.

In the 15th paragraph of the Final Office Action, Examiner rejects claims 36, 37, 39, 40-46, 48, and 49 under 35 USC § 103(a) as allegedly being unpatentable in view of Mahany and U.S. Patent No. 5,854,621 to Junod et al. ("Junod") and in light of the rejections to claims 47 and 35. This rejection is respectfully traversed.

Claims 36, 37, and 39-46 depend on claim 34, directly or indirectly, and claims 48 and 49 depend on claim 47, which depends on claim 1. All arguments advanced above with respect to claims 1 and 34 are hereby incorporated so as to apply to claims 36, 37, 39-46, 48, and 49. Based on these arguments, Mahany fails to show the protocol implementation in response to identification of the device transmitting the output signal as claimed in independent claims 1 and 34. Further, even if Junod discloses using a wireless mouse and mentions the possibility of a wireless keyboard, and even if the combination of Junod with Mahany was proper, both Junod alone and the combination of Junod with Mahany still fail to show the claimed protocol implementation elements of claims 1 and 34. Therefore, neither Mahany nor Junod, alone or in combination anticipate all the elements of claims 36, 37, 39-46, 48, and 49. Thus, Applicants respectfully submit that for at least these reasons claims 36, 37, 39-46, 48, and 49 are patentably distinguishable over the cited references, both alone and

in combination. Therefore, Applicants respectfully request that Examiner reconsider the rejection, and withdraw it.

In the 24th and 25th paragraphs of the Final Office Action, Examiner rejects claims 8, 9, 27, 28 and 38 under 35 USC § 103(a) as allegedly being unpatentable in view of Mahany and U.S. Patent No. 6,393,008 to Cheng et al. ("Cheng"). This rejection is respectfully traversed.

Claims 8, 9 depend on claim 1, and claims 27 and 28 depend on claim 19 and claim 38 depends on claim 34. All arguments advanced above with respect to claims 1, 19, and 34 are hereby incorporated so as to apply to claims 8, 9, 27, 28 and 38. Based on these arguments, Mahany fails to show the protocol implementation in response to identification of the device transmitting the output signal as claimed in independent claims 1, 19, and 34. Further, even if Cheng discloses decoding MAC information in a wireless environment and the combination of Cheng with Mahany was proper, Cheng alone and the combination of Mahany and Cheng also fail to show the claimed protocol implementation elements of claims 1, 19, and 34. Therefore, neither Mahany nor Cheng, alone or in combination anticipate all the elements of claims 8, 9, 27, 28 and 38. Thus, Applicants respectfully submit that for at least these reasons claims 8, 9, 27, 28 and 38 are patentably distinguishable over the cited references, both alone and in combination. Therefore, Applicants respectfully request that Examiner reconsider the rejection, and withdraw it.

Conclusion

In sum, Applicants respectfully submit that claims 1-10, 17, 19-29 and 32-49, as presented herein, are patentably distinguishable over the cited references. Therefore,

Applicants request reconsideration of the basis for the rejections to these claims and request allowance of them.

In addition, Applicants respectfully invite Examiner to contact Applicants' representative at the number provided below if Examiner believes it will help expedite furtherance of this application.

Respectfully Submitted,
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